Applicant: Arai et al. Attorney's Docket No.: 16359-007001 / 722/SM/toh

Serial No.: 10/808,588 Filed: March 25, 2004

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## **AMENDMENTS TO THE CLAIMS**:

Please cancel claim 2, without prejudice or disclaimer of subject matter, and amend claims 1 and 3, as shown below. This listing of claims replaces all prior versions and listings of claims in the application:

## Listing of Claims:

1. (Currently Amended) A driving circuit for a vacuum fluorescent display having a filament, a grid electrode and a segment electrode, comprising:

a grid driving unit for pulse-driving the grid electrode;

a segment driving unit for pulse-driving the segment electrode;

a first controlling unit for rendering adjustable the duty ratio of the output of the grid driving unit configured to receive a first dimmer adjustment data for adjusting duty ratio of a grid drive signal that is a drive signal to the grid electrode, and to output a first dimmer control signal having duty ratio corresponding to the first dimmer adjustment data;

a second controlling unit for rendering adjustable the duty ratio of the output of the segment driving unit configured to receive a second dimmer adjustment data for adjusting duty ratio of a segment drive signal that is a drive signal to the segment electrode, and to output a second dimmer control signal having duty ratio corresponding to the second dimmer adjustment data; and

a selecting unit for selecting the first controlling unit and/or the second controlling unit

a first multiplexer unit configured to output either the first dimmer control signal output from the first controlling unit or a driving signal having a predetermined duty ratio as the grid drive signal, based on a first dimmer type select flag indicating whether duty ratio of the grid drive signal should be adjusted or not; and

a second multiplexer unit configured to output either the second dimmer control signal output from the second controlling unit or a driving signal having a predetermined duty ratio as the segment drive signal, based on a second dimmer type select flag indicating whether duty ratio of the segment drive signal should be adjusted or not.

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## 2. (Cancelled)

3. (Currently Amended) The driving circuit for a vacuum fluorescent display according to claim 1, wherein the selecting unit sets the output of the grid driving unit to a given duty ratio when the first controlling unit is not selected a pulse width of the driving signal having the predetermined duty ratio output from the first multiplexer unit excludes a width associated with a time during which a voltage applied to the grid electrode dulls, and

when the second controlling unit is not selected a pulse width of the driving signal having the predetermined duty ratio output from the second multiplexer unit excludes a width associated with a time during which a voltage applied to the segment electrode dulls.

- 4. (Original) The driving circuit for a vacuum fluorescent display according to claim 1, wherein the driving circuit is a semiconductor integrated circuit having a filament driving unit for pulse-driving the filament, with a switching device externally connectable for generating a voltage for pulse-driving the filament.
- 5. (Original) The driving circuit for a vacuum fluorescent display according to claim 1, wherein the driving circuit comprises a switching device for generating a voltage for pulse-driving the filament.
- 6. (Original) The driving circuit for a vacuum fluorescent display according to claim 5, wherein the driving circuit is a semiconductor integrated circuit, with the switching device being externally connectable.
- 7. (Original) The driving circuit for a vacuum fluorescent display according to claim 5, wherein the driving circuit is a semiconductor integrated circuit having the switching devices integrated therein.